

FIG. 1

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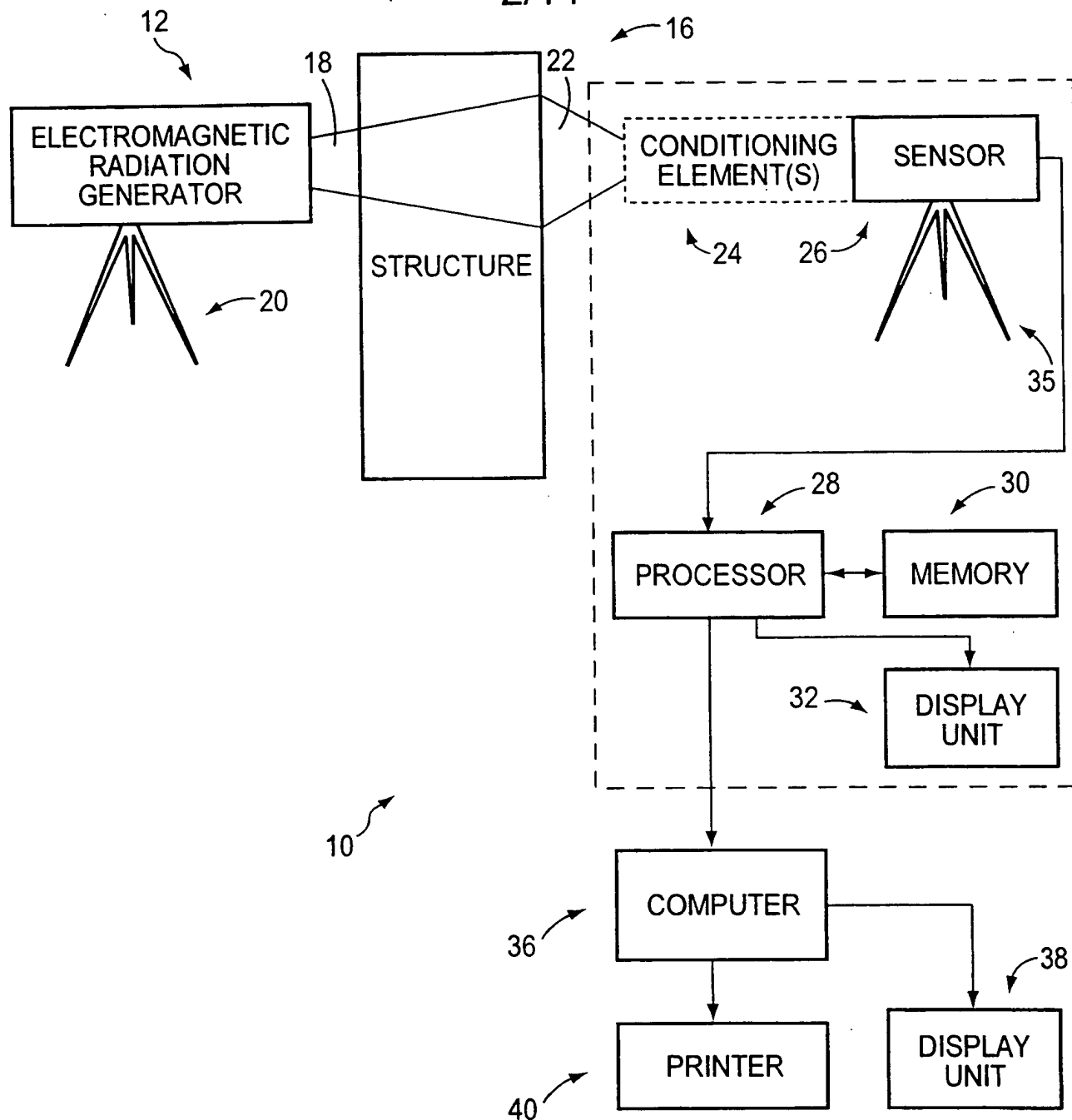


FIG. 2

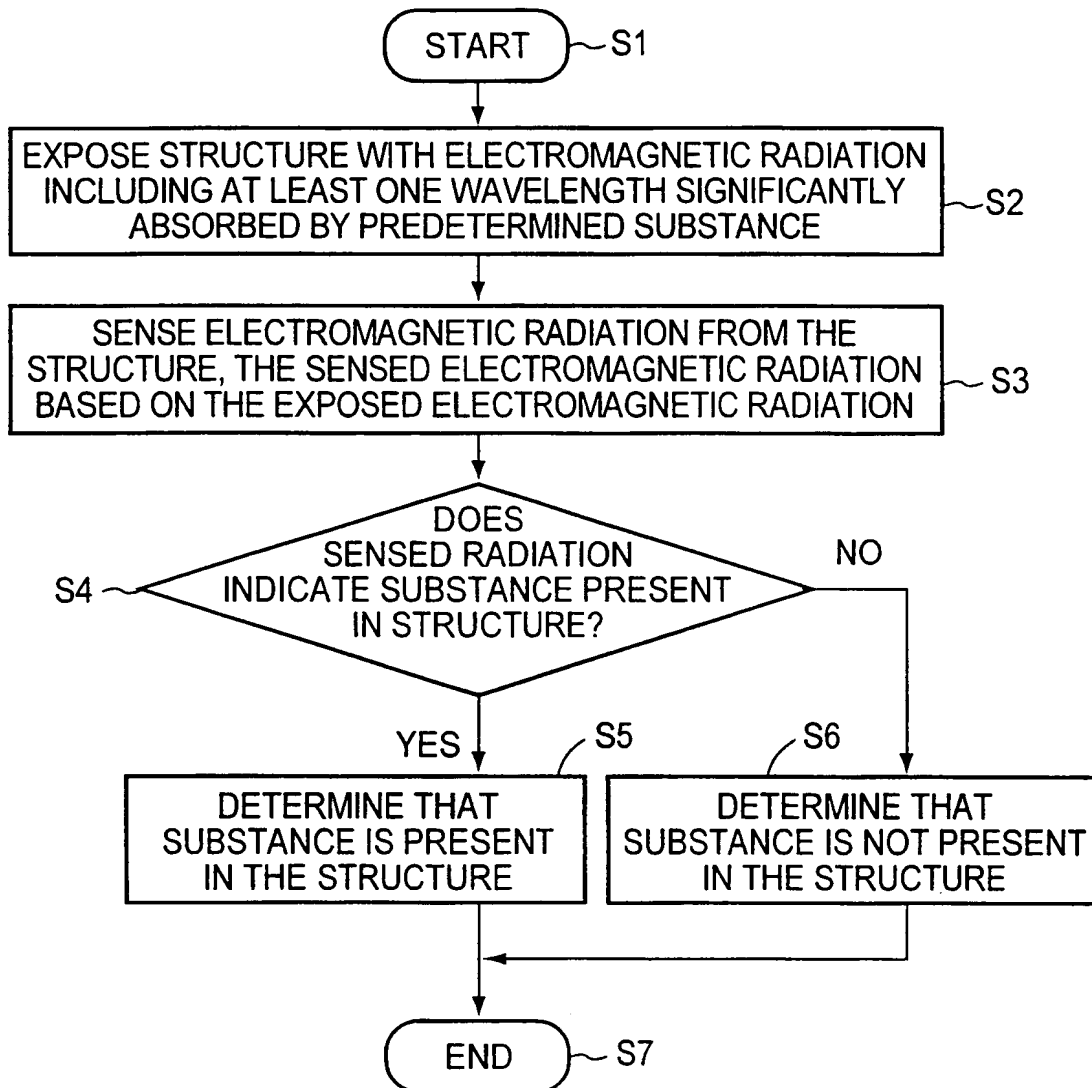


FIG. 3

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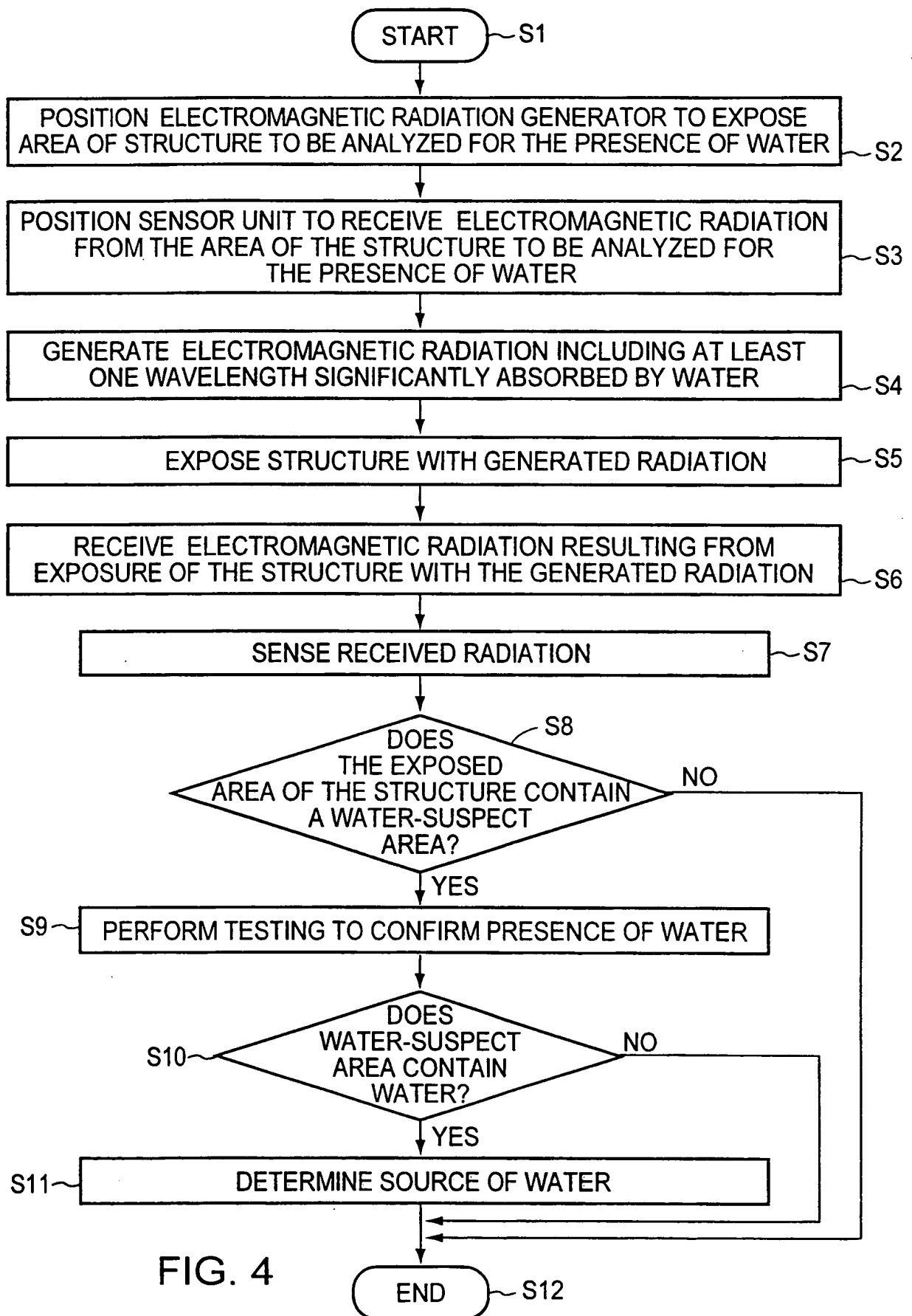


FIG. 4

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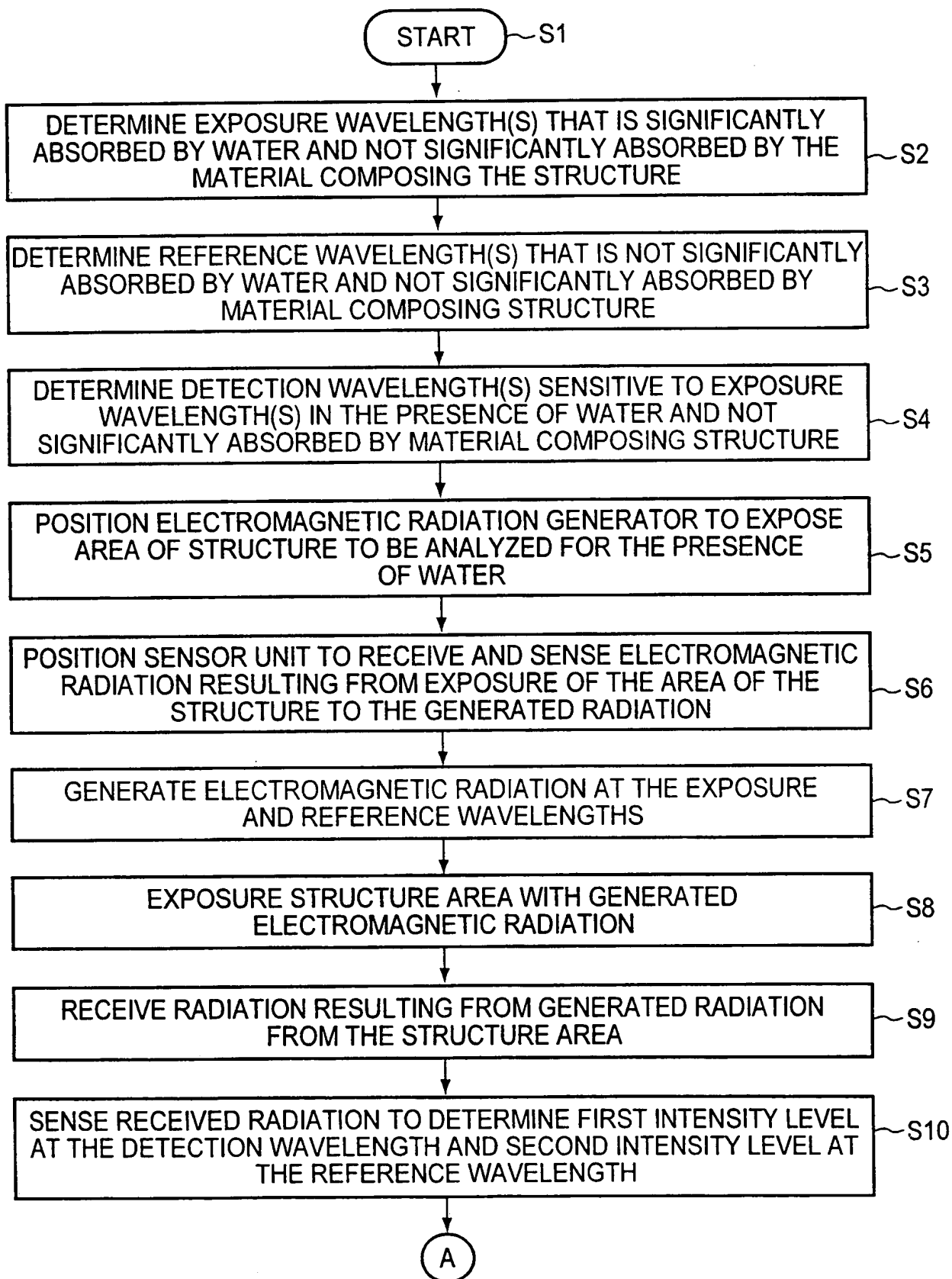


FIG. 5A

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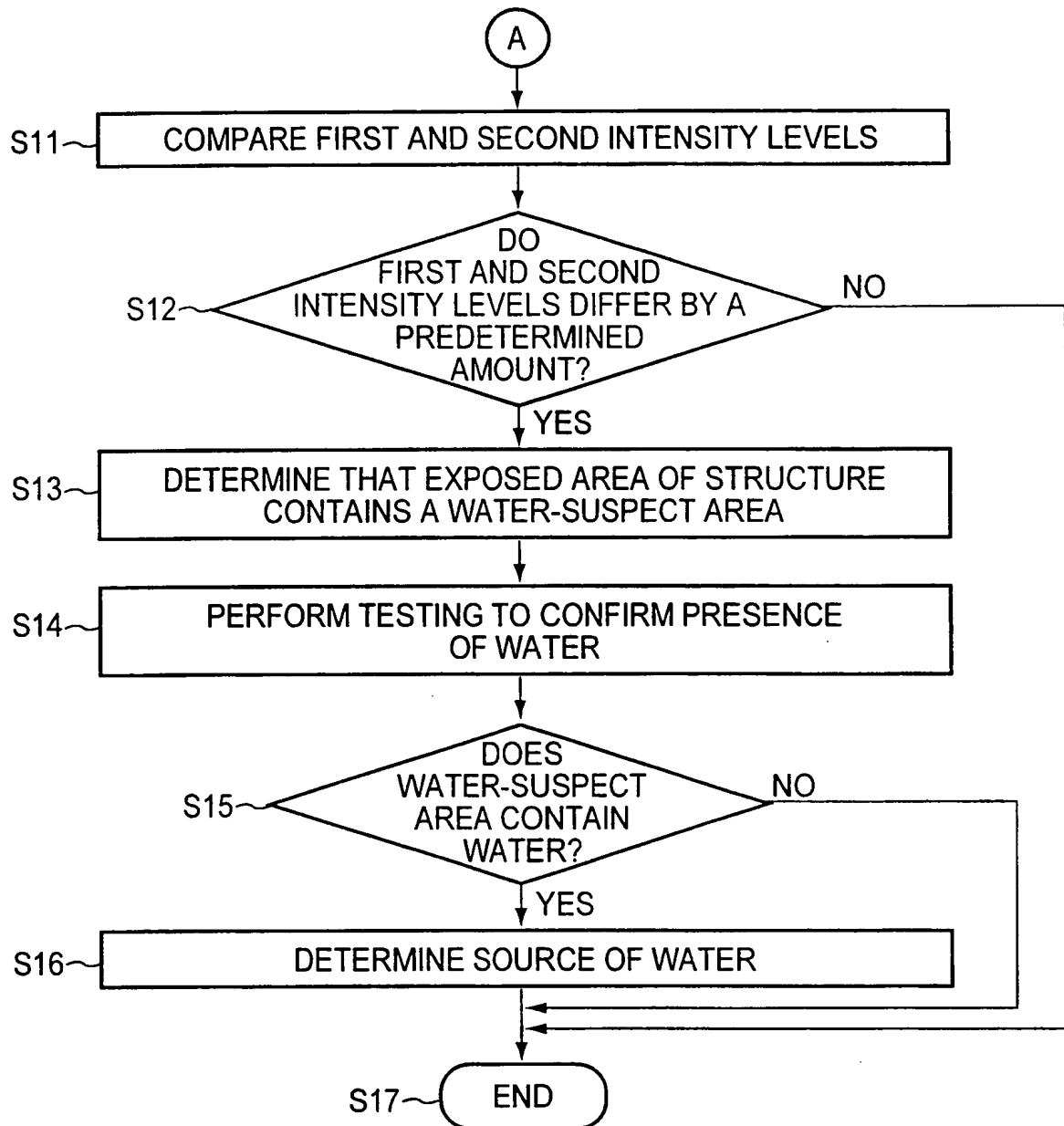


FIG. 5B

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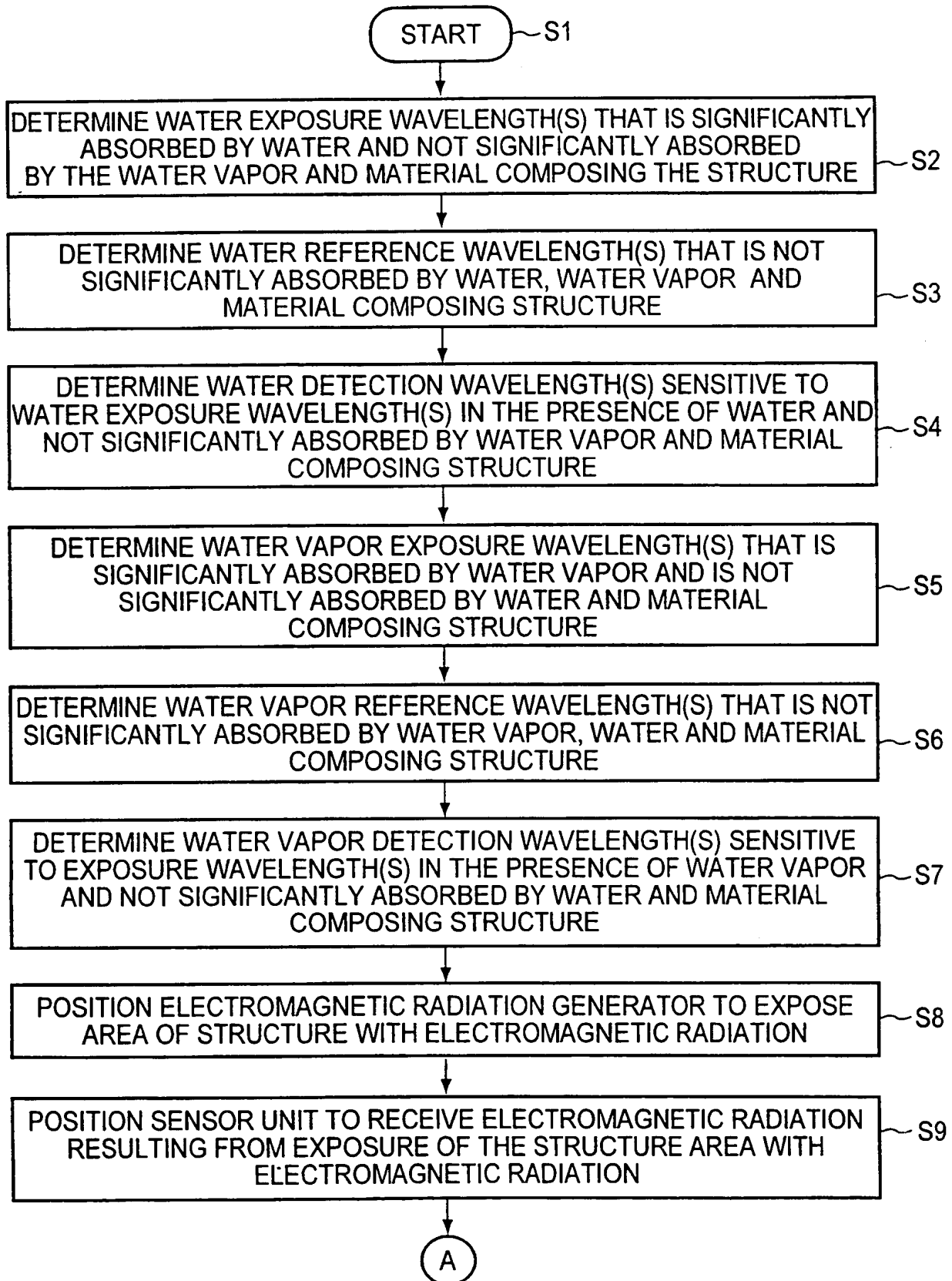


FIG. 6A

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(B)

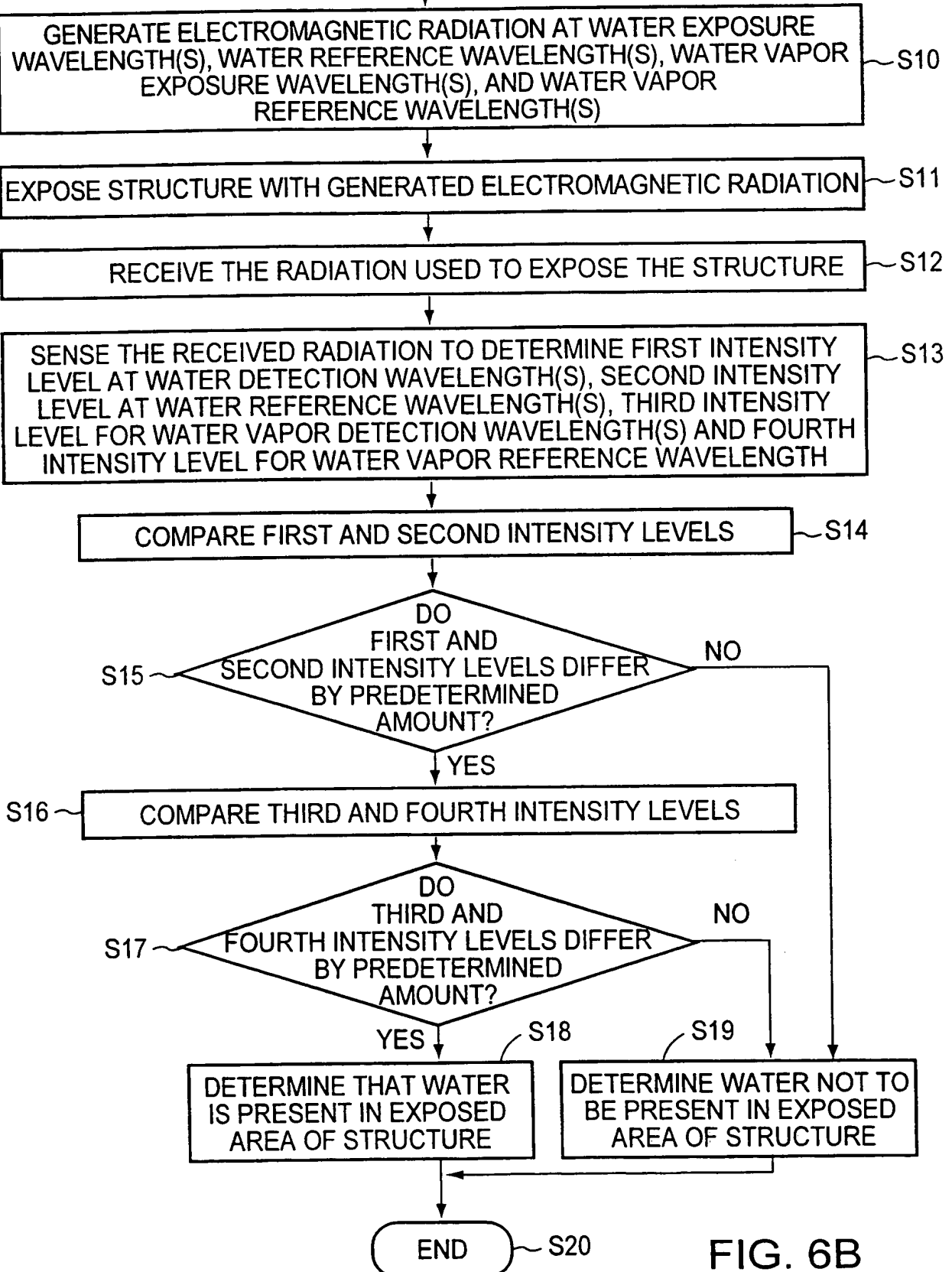


FIG. 6B



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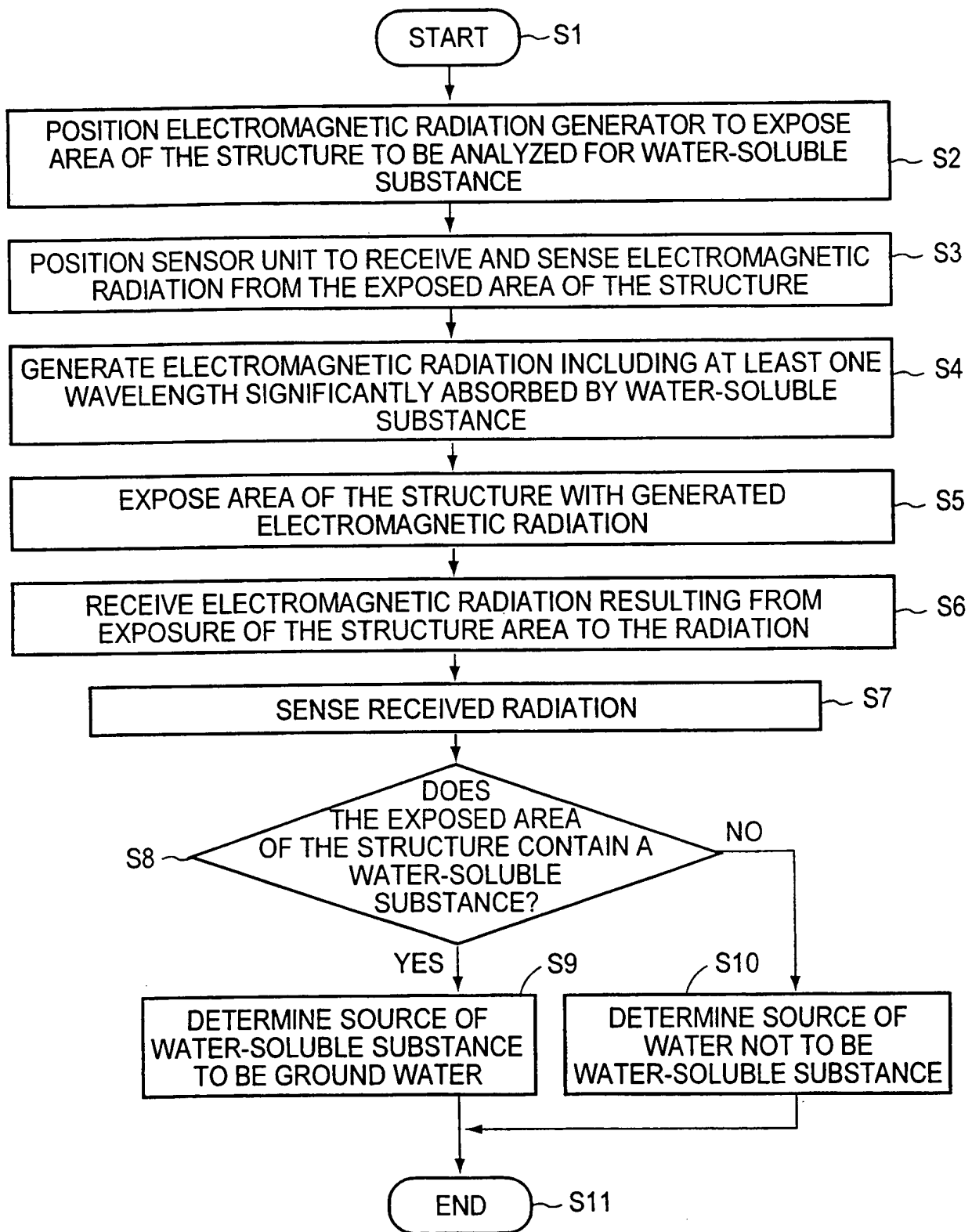


FIG. 7

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START S1

DETERMINE EXPOSURE WAVELENGTH(S) FOR ELECTROMAGNETIC RADIATION THAT IS SIGNIFICANTLY ABSORBED BY WATER-SOLUBLE SUBSTANCE AND NOT SIGNIFICANTLY ABSORBED BY MATERIAL COMPOSING STRUCTURE S2

DETERMINE REFERENCE WAVELENGTH(S) FOR ELECTROMAGNETIC RADIATION THAT IS NOT SIGNIFICANTLY ABSORBED BY WATER-SOLUBLE SUBSTANCE AND IS NOT SIGNIFICANTLY ABSORBED BY MATERIAL COMPOSING STRUCTURE S3

DETERMINE DETECTION WAVELENGTH(S) FOR ELECTROMAGNETIC RADIATION THAT IS SENSITIVE TO EXPOSURE WAVELENGTH IN THE PRESENCE OF WATER-SOLUBLE SUBSTANCE AND THAT IS NOT SIGNIFICANTLY ABSORBED BY MATERIAL COMPOSING STRUCTURE S4

POSITION ELECTROMAGNETIC RADIATION GENERATOR TO EXPOSE AREA OF STRUCTURE TO BE ANALYZED FOR THE PRESENCE OF WATER-SOLUBLE SUBSTANCE S5

POSITION SENSOR UNIT TO RECEIVE ELECTROMAGNETIC RADIATION FROM STRUCTURE AREA TO BE ANALYZED FOR PRESENCE OF WATER-SOLUBLE SUBSTANCE S6

GENERATE ELECTROMAGNETIC RADIATION INCLUDING EXPOSURE AND REFERENCE WAVELENGTH S7

EXPOSE STRUCTURE WITH GENERATED ELECTROMAGNETIC RADIATION S8

RECEIVE ELECTROMAGNETIC RADIATION RESULTING FROM EXPOSURE OF THE STRUCTURE TO GENERATED RADIATION S9

SENSE RADIATION BY DETERMINING FIRST INTENSITY LEVEL AT DETECTION WAVELENGTH SIGNIFICANTLY ABSORBED BY WATER-SOLUBLE SUBSTANCE AND SECOND INTENSITY LEVEL AT REFERENCE WAVELENGTH NOT SIGNIFICANTLY ABSORBED BY WATER-SOLUBLE SUBSTANCE S10

A

FIG. 8A

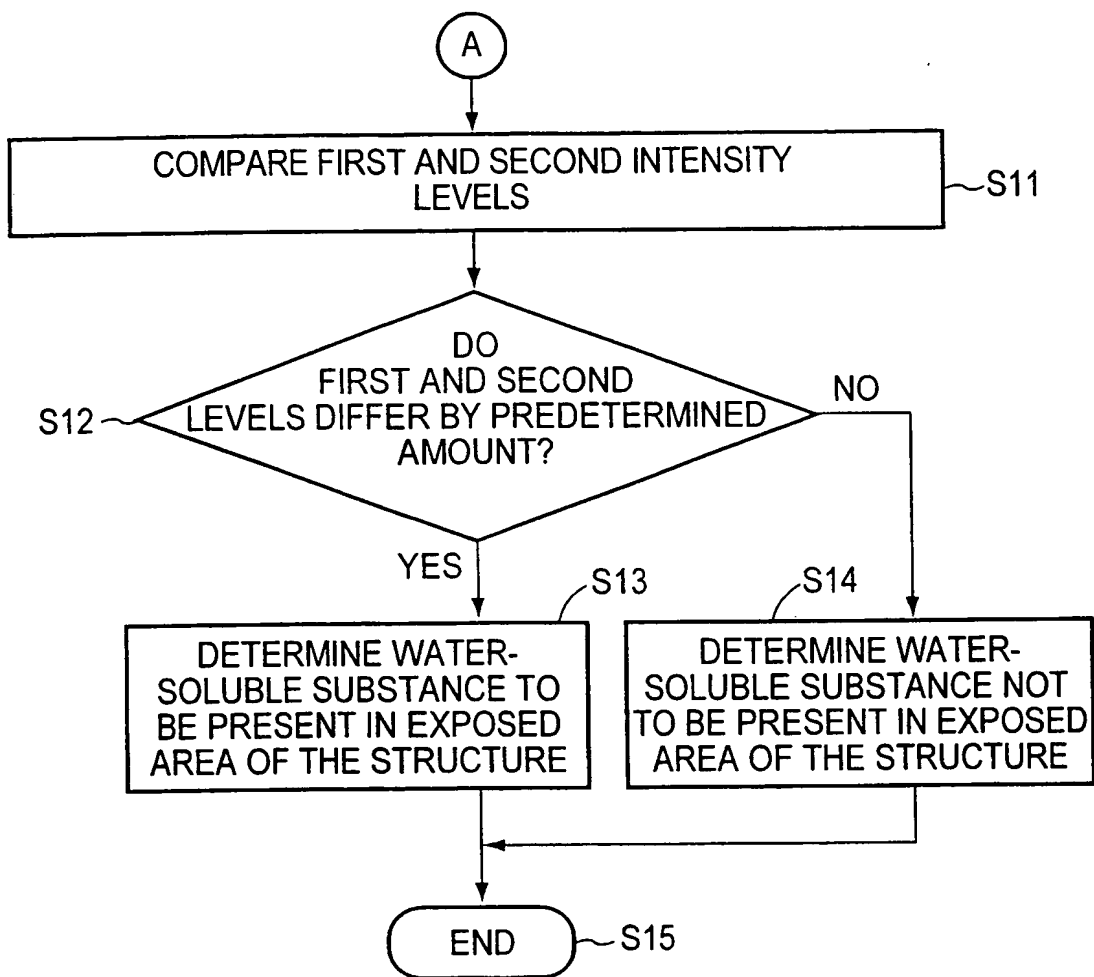


FIG. 8B

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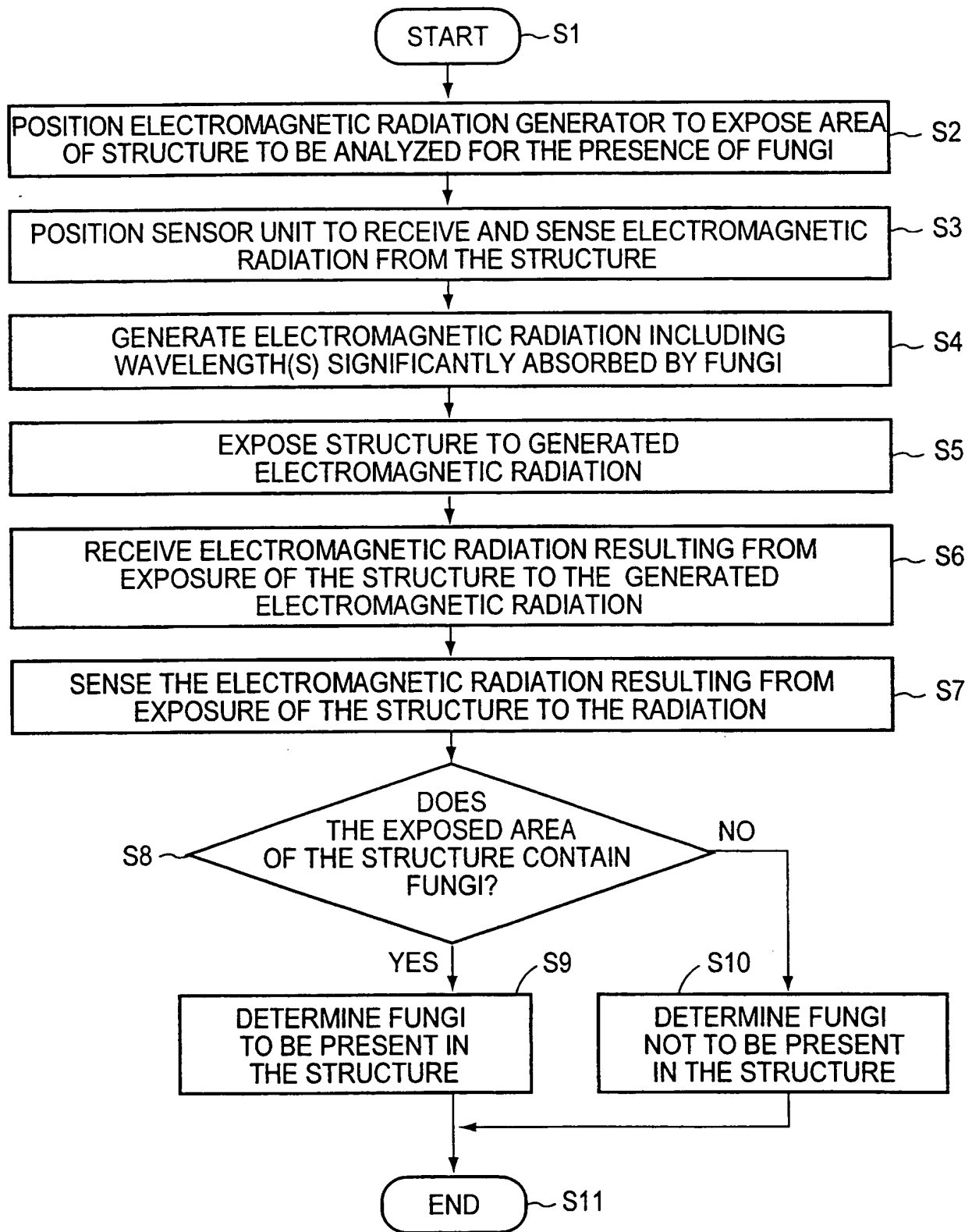


FIG. 9

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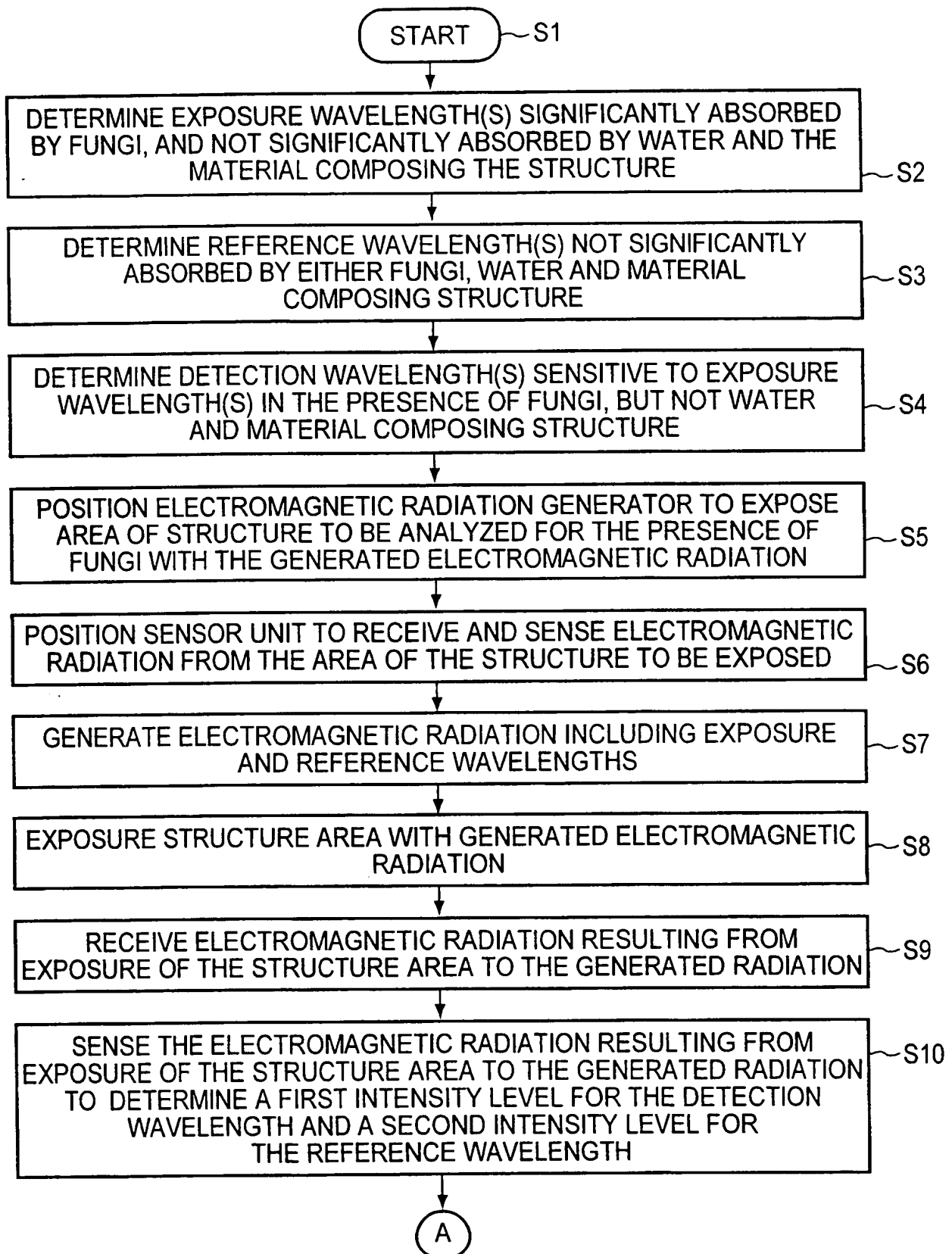


FIG. 10A

